

MULTIMEDIA



UNIVERSITY

STUDENT ID NO

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MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 3, 2016 / 2017

PCA 0084 – COMPUTER SYSTEM AND WEB DESIGN
(Foundation in Business)

29 MAY 2017
9.00 a.m. – 11.00 a.m.
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of 5 pages (excluding the cover page) with 5 questions only.
2. Attempt **ALL** questions. All questions carry equal marks and the distribution of the marks for each question is given.
3. Please write all your answers in the Answer Booklet provided.

QUESTION 1 [10 Marks]

a. Look at **Figure 1**. Answer the following questions.

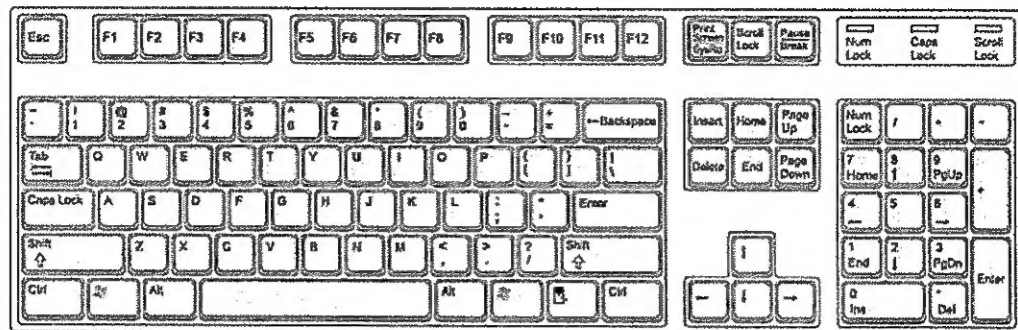


Figure 1

- i. What is the name of the device and what is its function? (1 mark)

- ii. Provide **TWO (2)** examples of key for each of the followings. (3 marks)
 1. Toggle keys
 2. Alphabet keys
 3. Function keys

- b. What are the **THREE (3)** ways to produce output from the computer? (3 marks)

- c. Many companies use OCR characters on turnaround documents. What is *turnaround document*? (2 marks)

- d. Give **TWO (2)** solutions to reduce chances of experiencing repetitive strain injuries at your wrist when typing on keyboard. (1 mark)

Continued ...

QUESTION 2 [10 Marks]

- a. Choose appropriate units of measurement for the following speeds.

hertz	bit per second	byte per nanosecond	byte per second
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- i. Memory access time _____
- ii. Hard drive transfer rate _____
- iii. Data speed for computer modems _____
- iv. Clock speed of a CPU _____

(2 marks)

- b. Discuss briefly the functions of the following computer memory in the system unit.

- i. Random access memory
- ii. Read only memory
- iii. Cache
- iv. CMOS

(4 marks)

- c. **Figure 2** shows some of the external computer ports located at the back of the system unit. Answer the following questions.

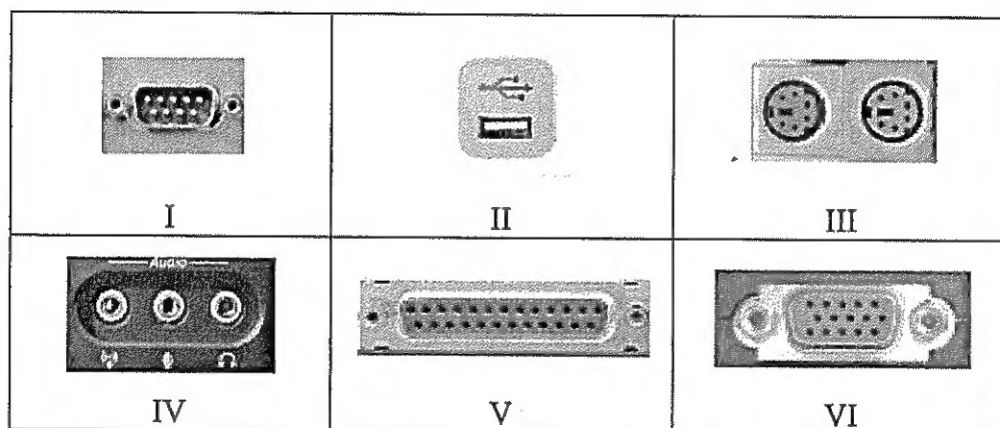


Figure 2

- i. What is computer port?
(1 mark)
- ii. Choose the correct name for the computer ports in **Figure 2**: VGA port, serial port, PS/2 port, USB port, audio port and parallel port.
(3 marks)

Continued ...

QUESTION 3 [10 Marks]

- a. *Stand-alone, server* and *embedded* are the three basic categories of operating systems that exist today.
- i. Discuss briefly how each category is different.

(3 marks)

- ii. Give **THREE (3)** reasons why all types of computers must have operating system installed in them.

(3 marks)

- b. Compare open-source software and proprietary software for desktop computers in terms of the licensing agreements and hardware requirements. Write your answers in a table format as shown in **Table 1**.

Table 1

Software	Licensing agreements	Hardware requirements
Open-source		
Proprietary		

(2 marks)

- c. Name the utility program used to do each of the following tasks.
- i. You plan to organize all your computer files in proper folders and to delete those unnecessary files. _____
- ii. You forget where you have saved your document in the computer. _____
- iii. You want to remove properly the computer games that you had downloaded from the Internet last month. _____
- iv. You want to detect and protect your computer from unauthorized intrusions. _____

(2 marks)

QUESTION 4 [10 Marks]

- a. A small business that has less than 30 employees is just setup. The business owner wants to install a network at its new office. Few factors need to take into account when designing this network. Answer the following questions.

i. State the difference between a local area network and a wide area network. Which network is more suitable to setup for the business and why?

(3 marks)

ii. There are three common topologies can be applied to the type of network you have chosen above. Choose **ONE (1)** and state **ONE (1)** advantage and **ONE (1)** disadvantage of the topology you choose.

(2 marks)

iii. Identify and explain briefly the features of **TWO (2)** physical transmission media that may be used to connect devices in the network.

(2 marks)

- b. Below are qualities of valuable information.

- Accurate
- Verifiable
- Timely
- Cost-effective

For each of the following statements, select the correct term from the list above.

- i. The airport security personnel scan the employee name tags for personal identification. _____
- ii. Many business organizations make information available online instead of printed information. _____
- iii. As consumers, we assume all credit reports we received from banks are error free. _____
- iv. It is very important for business people to make important decisions based on the information on what is happening now and not outdated information. _____

(2 marks)

- c. Refer to **Figure 3**. It is an important consideration to choose the appropriate data type for a field. Why are the data types important?

player		
	Field Name	Data Type
<input checked="" type="checkbox"/>	jersey	Number
<input type="checkbox"/>	name	Text
<input type="checkbox"/>	position	Text
<input type="checkbox"/>	height	Number
<input type="checkbox"/>	weight	Number
<input type="checkbox"/>	birthdate	Date/Time

Figure 3

(1 mark)

Continued ...

QUESTION 5 [10 Marks]

- a. Name **THREE (3)** multimedia elements that can be used to effectively develop multimedia applications. Your answer should briefly describe each element.
(3 marks)
- b. Virtual Reality is not only for entertainment. Give a definition of Virtual Reality and discuss briefly **ONE (1)** example of Virtual Reality application that can help professional environment.
(2 marks)
- c. What is the main difference between the JPEG and GIF graphic format?
(2 marks)
- d. Classify each of the terms below as a computer security threat for each of the following statement.

Malware	Privacy	Piracy
Information theft	Hardware theft	System Failure

- i. A small fire has broken out in a data center and server room of the Helton Hotel this evening and has interrupted some of the hotel business operations such as room bookings. _____
- ii. Mossa realized that someone has stolen and misused his credit card number because he received email payment notification without making any purchase.

- iii. Ronaldo notices that all his files with ".exe" and ".com" extensions in his flash drive are corrupted. _____
- iv. Olga has to reveal his name, contact information and login information when he subscribes emails on the Web. _____
- v. Lee, the lab technician, found that someone had swapped the 256MB PC memory to 128MB PC memory in some of the PCs in the computer lab which is under his surveillance. _____
- vi. Hunny is the head of a new division of a small company with about 40 PCs. She plans to reduce expenses for the company by cutting corners on the software licenses. She is authorized only for a single user license for the software she purchased but she plans to install the software in all the PCs.

(3 marks)

End of Paper